Raspberry Pi-4 Power-Hat Case Assembly with Axial Fan

multicomp PRO

Pi-4 Case Assembly

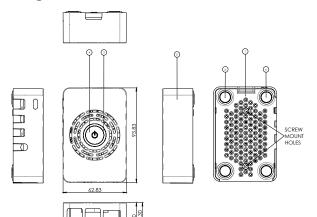
RoHS Compliant

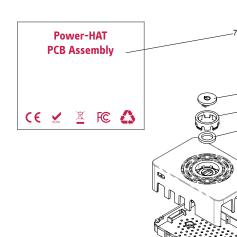


Contents Includes

- Black ABS case
- · Power-HAT PCB Assembly with Fan Bracket
- 30mm 5V DC fan MP001243

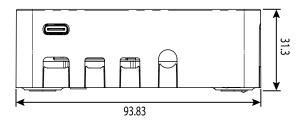
Diagram

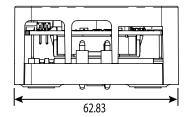




No.	Description			
1	Pi-4 Standard Base Moulding			
2	Pi-4 Power Hat Upper Moulding			
3	Pi-4 LED Moulding			
4	Pi-4 Button Moulding]		
5	Pi-4 Power Button Foam Pad]		
6	6 TECHNI-3 Foam Rubber Foot			
7	Power-Hat PCB Assembly INC Fan Bracket	1		

Mechanical Dimensions





Dimensions: Millimetres

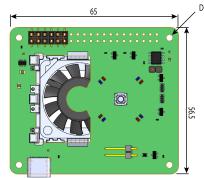
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DIAMETER 2.5mm (4 PLACES)

GPIO-PIN	BCM-Name	Signal	Description	
1	3.3V	Power	Used by Power-HAT to enable Green LEDs	
2	5.0V	Power	Switched 5V power from Power-HAT to Pi	
3	I2C_SDA	Not Used		
4	5.0V	Power	Switched 5V power from Power-HAT to Pi	
5	I2C_SCL	Not Used		
6	GND	GND		
7	GPIO4	Not Used		
8	GPIO14	Fan Control	Set GPIO14 HIGH to enable fan	
9	GND	GND		
10	GPIO15	IR Input	Optional IR receiver (Not Fitted)	
11	GPIO17	Shutdown_Req	Signal from Power-HAT to Pi to request a shut-down.	
12	GPIO18	Shutdown_Done	Signal from Pi to indicate shutdown has completed. The Power-HAT removes the power from the Pi once this signal is asserted.	

Mechanics

Board Thickness	1.6mm
Overall Size	65mm × 56.5mm
Max. Fan size	30mm × 30mm × 6.9mm

30mm 5V DC Axial Fan



Mechanical Characteristic

Motor Design : Single phase, 4-poles Brushless DC motor

Bearing System : Vapo bearing system

Materials of Frame : Thermoplastic PBT of UL 94V-0
Materials of Fan Blade : Thermoplastic PBT of UL 94V-0

Direction of Rotation : Counter-clockwise viewed from front of fan blade

Mounting Holes : Diameter 3.2mm in 3 holes

Weight : 6g

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Electric Characteristic

Rated Voltage : 5V DC

Rated Current : 112mA / Max. 124mA
Rated Power Consumption : 0.56 Watts / Max. 0.62 Watts

Safety Power Consumption : 0.72 Watts

Operating Voltage Range : 2.5V DC to 6V DC

Starting Voltage : 2.5V DC (25°C power On/Off)

Operating Temperature Range : -10°C to +70°C Storage Temperature Range : -40°C to +70°C

Performance Characteristic

Rated Speed : 9100 RPM ±15% at rated voltage

Air Flow : 4.9 CFM

Static Pressure : 0.17 Inch - H₂O / Min. 0.14 Inch - H₂O

Acoustic Noise : 23.6dB(A) / Max. 28.3dB(A)

Insulation Class : UL Class A

Insulation Resistance

Plastic Housing : 10MΩ at 500V DC between internal stator and Lead wire (+)

Dielectric Strength : Applied AC 500V for one minute or AC 600V for 2 Seconds between housing and lead wire (+)

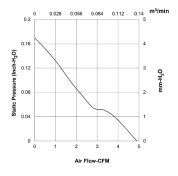
Life Expectancy : 60,000 Hours at 40°C, 65% humidity, 90% CL

Protection : Automatic Restart

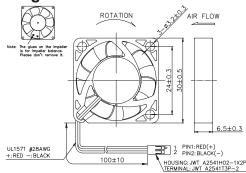
Note: The motor will shut down when rotor was locked, then auto restart within 10 seconds

Polarity Protection

Performance Curves



Diagram



Dimensions : Millimetres

Part Number Table

Description	Part Number	
Raspberry Pi-4 Power-HAT Case Assembly with Axial Fan	MP001926	

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